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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,486	10/31/2003	Eric Anderson	200207252-1	3149
22879 HEWLETT PA	7590 03/08/2007 CKARD COMPANY	EXAMINER		
P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			RADTKE, MARK A	
			ART UNIT	PAPER NUMBER
			2165	
			MAIL DATE	DELIVERY MODE
			03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

#### 

2) applicant's representative

e) No.

Identification of prior art discussed: Verma (USPN 6.856.993).

c) Personal [copy given to: 1) applicant

Type: a) ✓ Telephonic b) ✓ Video Conference

Exhibit shown or demonstration conducted: d) Yes

If Yes, brief description: \_\_\_\_

Claim(s) discussed: 1.

Agreement with respect to the claims f)  $\square$  was reached. g)  $\square$  was not reached. h)  $\boxtimes$  N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: <u>See Continuation Sheet</u>.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

1m 315/07

Examiner Note: You must sign this form unless it is an

Attachment to a signed Office action.

Tony Mahmouch.

Examiner's signature, if required

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant's representative discussed the distinction between the TxF log and the textual file system interface as it relates to the claims currently under consideration. Examiner reiterated his position in the Final Office Action that the TxF log could be used as a textual interface to the file system. Applicant's representative proposed amendments to the claims (see attached pages) that incorporate the subject matter of claim 3 and make additional changes to their scope (e.g., "provides a textual filesystem interface"). Examiner stated that the proposed claims may require additional search and consideration.

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To: Mark Radtke	Fax Number: 15712737163	
Company : USPTO	Date: 3/1/2007	
From: 6508531114	Fax Number : 6508531114	
Company:	Pages including cover page: 1	

Subject: Agenda for discussing US Pat Application 10/699,486

# **Comments:**

### Mark:

Please let me know when you would be available to discuss the following points:

- 1. The difference between 'copying a file' and 'duplicating a filesystem'
- 2. How the "Logging Service" or system of Verma is a pseudo-filesystem
- 3. How the TxF log is the same as a 'textual filesystem interface'
- 4. Difference between TxF logs and commands entered in Txf There are probably a few more but these are the highlights. Best, Leland, Maricar and Fiona.

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To: Mark Radtke	Fax Number: 15712737163	
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Company:	Pages including cover page: 8	

## **Comments:**

Subject: Application 10/699.486

Mark:

Please review and contact me when you have a chance.

Thank you.

Leland

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PROPOSED CLAIMS FOR 10/699,486 - in response to Office Action Mailed 11/1/2006

1. (Currently Amended) A method of creating a filesystem with transaction based functionality, comprising:

receiving an indicator to initiate a transaction for files stored in one or more portions of the filesystem;

duplicating the [one or more portions of the] filesystem within a pseudo-filesystem; and

creating a control text file that <u>provides a textual filesystem interface and</u> receives text-based commands to operate on the pseudo-filesystem[[.]];

processing the text-based commands written to the control file; and

operating on the one or more portions of the pseudo-filesystem within a transaction according to the text-based commands.

- 2. (Original) The method of claim 1 wherein the duplicating is performed lazily.
- 3. (Canceled)
- 4. (Original) The method of claim 1 further comprising:

completing the transaction upon receipt of a text-based command associated with terminating the transaction.

5. (Original) The method of claim 3 wherein the text-based commands include functional equivalent commands associated with terminating the transaction and selected from a set of commands for performing one of the following functions: delete directory, delete filesystem, and abort.

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6. (Original) The method of claim 1 further comprising:

updating the filesystem with the updates performed on the pseudo-filesystem when the transaction has completed.

- 7. (Original) The method of claim 6 wherein the updates are performed upon receipt of an indication to commit the transaction.
- 8. (Original) The method of claim 1 further comprising:
  creating a status text file that provides text-based status results from operations performed
  on the pseudo-filesystem.
- 9. (Original) The method of claim 1 wherein the indicator to initiate the transaction results from the creation of a directory within a pseudo-filesystem.
- 10. (Original) The method of claim 1 wherein the transaction ensures atomic updates to the filesystem in accordance with modifications made to the pseudo-filesystem and related files during the transaction.
- 11. (Original) The method of claim 1 wherein a user assists in reconciliation of conflicts between updates in the pseudo-filesystems.
- 12. (Currently Amended) A method of interfacing with a filesystem comprising:

receiving a text-based command in a command file for operating on a pseudofilesystem corresponding to the filesystem within a transaction;

determining whether one or more data dependencies would prevent the text-based command from being performed on the pseudo-filesystem; and

performing the text-based command and potentially updating the pseudo-filesystem, the filesystem and one or more corresponding files associated with the pseudo-filesystem and filesystem respectively[[.]]; and

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updating a status file associated with the pseudo-filesystem with a text-based status result for performing the text-based command and updates performed in the filesystem.

13. (Currently Amended) The method of claim 12 wherein the text-based status results in the status file includes intermediate status results. [further comprising:

updating a status file associated with the pseudo-filesystem with text-based intermediate status results for performing the text-based command and updates performed in the system.]

14. (Currently Amended) The method of claim 12 wherein the text-based status results in the status file includes final status results. [further comprising:

updating a status file associated with the pseudo-filesystem with text-based results indicating the final status associated with the command.]

- 15. (Original) The method of claim 12 wherein receiving a text-based command includes functional equivalent commands selected from a set including: change root directory, select concurrency control type, select isolation level, commit transaction, and abort transaction.
- 16. (Original) The method of claim 12 wherein determining the one or more data dependencies includes using optimistic concurrency control (OCC) to control pending read and write operations to the pseudo-filesystem, the filesystem and one or more corresponding files associated with the pseudo-filesystem and filesystem respectively.
- 17. (Original) The method of claim 12 wherein determining the one or more data dependencies includes using lock-based concurrency control (LBCC) to control pending read and write operations to the pseudo-filesystem, the filesystem and one or more corresponding files associated with the pseudo-filesystem and filesystem respectively.

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18. (Original) The method of claim 12 wherein a user assists in reconciliation of conflicts between resources in the filesystem and pseudo-filesystems and files associated with these.

19. (Currently Amended) A computer program product for creating a filesystem with transaction based functionality, tangibly stored on a computer readable medium, comprising instructions operable to cause a programmable processor to:

receive an indicator to initiate a transaction for files stored in one or more portions of the filesystem;

duplicate the one or more portions of the filesystem within a pseudo-filesystem;

create a control file that provides a textual filesystem interface and receives textbased commands to operate on the pseudo-filesystem[[.]];

process the text-based commands written to the control file; and

operate on the one or more portions of the pseudo-filesystem within a transaction according to the text-based commands.

20. (Currently Amended) A computer program product for interfacing with a filesystem, tangibly stored on a computer readable medium, comprising instructions operable to cause a programmable processor to:

receive a text-based command in a command file for operating on a pseudo-filesystem corresponding to the filesystem within a transaction;

determine whether one or more data dependencies would prevent the text-based command from being performed on the pseudo-filesystem; and

perform the text-based command and potentially updating the pseudo-filesystem, the filesystem and one or more corresponding files associated with the pseudo-filesystem and filesystem respectively[[.]]; and

update a status file associated with the pseudo-filesystem with a text-based status result for performing the text-based command and updates performed in the filesystem.

21. (Currently Amended) An apparatus that creates a filesystem with transaction based functionality comprising:

a processor;

a memory having instructions capable of being executed on the processor that receive an indicator to initiate a transaction for files stored in one or more portions of the filesystem, duplicate the one or more portions of the filesy processing the text-based commands written to the control file; and

operating on the one or more portions of the pseudo-filesystem within a transaction according to the text-based commands stem within a pseudo-filesystem, [[and]] create a control file that receives text-based commands to operate on the pseudo-filesystem, process the text-based commands written to the control file and operate on the one or more portions of the pseudo-filesystem within a transaction according to the text-based commands.

- 22. (Currently Amended) An apparatus that interfaces with a filesystem, comprising: a processor;
- a memory having instructions capable of being executed on the processor that receive a text-based command in a command file for operating on a pseudo-filesystem corresponding to the filesystem within a transaction, determine whether one or more data

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dependencies would prevent the text-based command from being performed on the pseudo-filesystem, and perform the text-based command and potentially updating the pseudo-filesystem, the filesystem and one or more corresponding files associated with the pseudo-filesystem and filesystem respectively[[.]]; and update a status file associated with the pseudo-filesystem with a text-based status result for performing the text-based command and updates performed in the filesystem.

23. (Currently Amended) An apparatus for creating a filesystem with transaction based functionality, comprising:

means for receiving an indicator to initiate a transaction for files stored in one or more portions of the filesystem;

means for duplicating the one or more portions of the filesystem within a pseudofilesystem; and

means for creating a control file that <u>provides a textual filesystem interface and</u> receives text-based commands to operate on the pseudo-filesystem[[.]];

means for processing the text-based commands written to the control file; and

means for operating on the one or more portions of the pseudo-filesystem within a

transaction according to the text-based commands.

24. (Original) An apparatus for interfacing with a filesystem, comprising:
means for receiving a text-based command in a command file for operating on a pseudofilesystem corresponding to the filesystem within a transaction;

means for determining whether one or more data dependencies would prevent the text-based command from being performed on the pseudo-filesystem; and

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means for performing the text-based command and potentially updating the pseudo-filesystem, the filesystem and one or more corresponding files associated with the pseudo-filesystem and filesystem respectively [[.]]; and means for updating a status file associated with the pseudo-filesystem with a text-based status result for performing the text-based command and updates performed in the filesystem.